

Health Advisory:

Pertussis Alert

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May 6, 2004

FROM: RICHARD C. DUNN
DIRECTOR

SUBJECT: Pertussis Alert

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This document will be updated as new information becomes available. The current version can always be viewed at <http://www.dhss.state.mo.us/H>.

The Missouri Department of Health & Senior Services (DHSS) is now using 4 types of documents to provide important information to medical and public health professionals, and to other interested persons:

Health Alerts convey information of the highest level of importance which warrants immediate action or attention from Missouri health providers, emergency responders, public health agencies, and/or the public.

Health Advisories provide important information for a specific incident or situation, including that impacting neighboring states; may not require immediate action.

Health Guidances contain comprehensive information pertaining to a particular disease or condition, and include recommendations, guidelines, etc. endorsed by DHSS.

Health Updates provide new or updated information on an incident or situation; can also provide information to update a previously sent Health Alert, Health Advisory, or Health Guidance; unlikely to require immediate action.

Office of the Director
912 Wildwood
P.O. Box 570

Jefferson City, MO 65102
Telephone: (800) 392-0272

Fax: (573) 751-6041

Web site: [Hwww.dhss.state.mo.usH](http://www.dhss.state.mo.us/H)

The Missouri Department of Health and Senior Services alerts health care providers concerning 8 cases of pertussis in the Cole County area in central Missouri.

Pertussis is one of the few vaccine-preventable diseases that are still endemic in the U.S., and it is important for health care providers to be vigilant when diagnosing cough illnesses of more than 2 weeks' duration. Universal vaccination of children younger than 7 years with the complete four- to five-dose series of DTaP is the best public health intervention for the prevention of pertussis. Newborns and infants should begin the DTaP series at 6 weeks to 2 months of age. For best protection, they should receive subsequent vaccinations as early as recommended.

Clinical Manifestations

Pertussis is highly communicable and can cause severe disease in very young children. It begins with mild upper respiratory tract symptoms and progresses to cough, and can further progress to severe paroxysms, often with a characteristic inspiratory whoop followed by vomiting. Fever is absent or minimal. Among older children and adults, the disease usually results in symptoms that can be mistaken for bronchitis and URI's – persistent cough, but no whoop. In infants younger than 6 months, apnea is a common manifestation and whoop may be absent.

It is important to remember that while pertussis is most often considered a young child's disease, it can occur at any age. Pertussis should be considered in older children and adults who have a persistent cough lasting more than 7-14 days, that cannot be attributed to another specific illness. Untreated, these older children and adults can act as a reservoir for pertussis disease and infect younger children.

Diagnostic Testing

Pertussis kits, with swabs and transport media, can be obtained from your local public health agency or the Missouri State Public Health Laboratory (573-751-0633).

Treatment

Until more data from clinical studies evaluating new macrolides become available, the Centers for Disease Control & Prevention (CDC) recommends erythromycin as the antimicrobial agent of choice for treatment of and prophylaxis against pertussis.

The specific drug of choice for treating pertussis is erythromycin estolate (40–50 mg/kg per day, orally, in 4 divided doses; maximum 2 g/day), for a full 14 days.

Once into the paroxysmal stage, the drug will not ameliorate the disease but will limit the spread to others. The patient should be isolated for 5 days after the initiation of erythromycin.

A possible alternative for patients who do not tolerate erythromycin is trimethoprim sulfamethoxazole (TMP-SMZ). The recommended dosage for children is trimethoprim, 8 mg/kg/day, and sulfamethoxazole, 40 mg/kg/day, in 2 divided doses for 14 days. The recommended dosage for adults is trimethoprim, 320 mg/day, and sulfamethoxazole, 1600 mg/day, in 2 divided doses for 14 days.

In addition, the American Academy of Pediatrics states that studies have documented that the newer macrolides, clarithromycin (15-20 mg/kg/day, orally, in 2 divided doses; maximum 1 g/day, for 7 days), or azithromycin dihydrate (10-12 mg/kg per day, orally, in 1 dose; maximum 500 mg/day, for 5 days) may be as effective as erythromycin and have fewer adverse effects and better compliance.

Penicillins and first- and second-generation cephalosporins are not effective against *B. pertussis*.

If appropriate antimicrobial therapy is contraindicated, the patient should be isolated until 3 weeks after the onset of paroxysms.

Prophylaxis of Household and Other Close Contacts

Erythromycin (40–50 mg/kg per day, orally, in 4 divided doses; maximum, 2 g/d) for 14 days is recommended for all household contacts and other close contacts, such as those in child care, regardless of age and immunization status (since pertussis immunity is not absolute and may not prevent infection). Some experts recommend the estolate preparation.

Immunization

Close contacts under the age of 7 who are unimmunized or those who have received fewer than 4 doses of DTaP should have immunizations initiated or continued according to the recommended schedule. A fifth dose is recommended if the fourth dose is given before the age of 4.

The best way to reduce the incidence of pertussis is to have a highly vaccinated population. This should be accomplished through physicians' offices and public health clinics. Five doses of DTaP at ages 2, 4, 6, 12-18 months and 4-6 years are recommended. Jefferson City area health care professionals should identify their clients under 7 years of age who are inadequately immunized against pertussis and recall them for immediate DTaP immunization.

Reporting

Health care providers are also requested to assist in the control of this outbreak through immediate reporting of suspect cases by telephone to your local public health agency or the Missouri Department of Health and Senior Services (800-392-0272).

If you have questions, please contact the department's Disease Investigation Unit at 573/751-6113, or 800-392-0272.